



ICT, EDUCATION AND SOCIETY

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ABSTRACT

Knowledge is exploding. Knowledge is increasing day by day. New discoveries are being made. (The twentieth century) is the century of information technology. Today we are living in the cyber age. Cyber means computer-powered 3G, 4G and 5G smartphones-androidphones have revolutionized the field of communication today. Computers are developing, due to its development, unimaginable changes are seen in every field.

All this has become possible due to the development of information technology. There has also been a revolution in the satellite sector. The task of obtaining information on the moon has become easier.

The twenty-first century is the century of science and technology. There is tremendous development. Every day something new is being researched. The whole world has become smaller. In the field of ICT, some new technique or tool is added from time to time, due to which its usefulness in all areas related to our life keeps increasing. Its usefulness and indispensability in the field of education was accepted decades ago. Even today, as soon as any new technique or tool is added in the field of ICT, experiments are started on what purpose it can be effectively utilized in the field of education or its utilization is started in a specific field after estimating its usefulness, as a result, today it is being successfully used for many purposes in education, as a result, the scope of IT in education is expanding.

There was a time when innovation in education was not welcomed or encouraged in many countries like India. Now the situation has changed. Due to the reduction in the cost of internet and ICT equipment and their increasing availability, ICT is being or can be used in many areas related to the education system as Teaching - Learning Process, Evaluation and Examination, Teaching - Learning Development, School Administration and Management, suggestions, Research, Library.

KEY WORDS: Issues / Challenges Occurred due to Use of ICT in Education, ICT and Society,

INTRODUCTION

Due to the development and easy availability of ICT and its supporting tools, its use and indispensability are increasing day by day in every field. Cell phones are available at prices according to the purchasing power of people of different economic levels. Due to the establishment and development of many units providing Internet services and the development of various types of social networking systems whose applications can be easily downloaded on cell phones or computers for free, a tremendous revolution has taken place in the field of ICT. On the other hand, due to the provision of computer education in schools and colleges, people's awareness of ICT has increased. Its use in daily life is increasing day by day. As a result, there has been a meaningful and progressive change in the functioning of almost all fields such as education, business, industry and trade. ICT has provided ways to carry out communication and economic transactions related to human life in a fast, reliable and secure manner, due to which its use is increasing in various fields including the education sector today and due to its use, many aspects related to different fields have developed. However, due to the use of ICT, along with development, many issues have also arisen in every sector. We will discuss some of

these issues and challenges in the present chapter.

Issues / Challenges Occurred due to Use of ICT in Education:

The use of ICT has undoubtedly helped in the development of the education sector but along with it, many questions and challenges have also arisen. Some of the challenges are as follows:

Legal Challenges:

- The biggest issue has arisen with plagiarism. When a person or writer presents the words or ideas written, said or published by another writer or person under his own name, it is known as plagiarism. In other words, when another person presenting the ideas of a writer or thinker does not cite the reference of the original writer or thinker or does not acknowledge it, it is known as plagiarism. Many incidents happen without the knowledge of the original writer. No effective way has been found to stop this.
- Plagiarism violates copyright and intellectual property laws.
- The affected writers or thinkers either do not have the understanding to use these laws, or do not want to face

legal action, which gives plagiarism a free rein to steal. If an author wants to take such action, in most cases, the task of gathering evidence also becomes difficult.

- This becomes an international issue if the original author and the plagiarist are citizens of different countries. Since the laws of each country are different, the question arises as to which country's law should be used to sue the accused.
- Some countries have banned certain types of literature, but such literature is easily available on websites in other countries. Any citizen of that country can obtain such literature through the internet and use it secretly. It becomes challenging for the security agencies of that country to prove such cases.
- In the same way, people can secretly spread false messages, misinformation, and rumors to each other using social media. It is impossible to monitor and control every such message that is spread on all types of social media.
- Pornographic literature is available on many websites. Which can be easily viewed by a person of any age on their computer and cell phone with the help of internet. Despite the ban in many countries like India, such literature available on the internet cannot be legally controlled. Because such websites are managed in other countries. The laws of other countries do not apply there. However, the user can block such websites. But innumerable such websites exist and many new websites are being developed every day in different countries. So legally other countries cannot control such activities.
- The problem of hacking on the Internet has also become serious. Hackers can hack into the emails and confidential information available on the computers of any leading educational institution and misuse it. Identifying such hackers is very difficult if not impossible. Therefore, legal action cannot be taken against them.
- Malware and viruses enter our computers through certain emails or other uses of the internet. Usually, such emails cannot be identified, so no legal action can be taken against them.
- Cyber laws have been implemented in India and around the world to control cybercrimes. But with the help of technologies like Bluetooth and Wi-Fi, in some cases, due to the carelessness of the computer owner, cybercriminals commit many crimes through their computers without their knowledge. In such situations, it becomes impossible to catch the real criminals.

Social Challenges:

The social challenges arising due to ICT use are as follows:

- Students become addicted to ICT and prefer to be alone rather than in a group, which negatively affects their adaptation and social life.
- Students' studies are hindered due to ICT addiction.
- Due to ICT, the prevalence and accessibility of obscene and inappropriate literature has become easy. School and college students are curiously attracted towards such literature. Without proper guidance and control, they become addicted to it, which has a negative impact on their personality and social development.
- With the help of ICT, an online group of people with similar

interests can be easily formed. If a student creates such a group and uses it for academic development, No problem arises. However, if they start using such groups for idle chat and exchanging unnecessary information, then most of their daily time is wasted, due to which their academic and social development is hampered.

- In many families, each member of the household has a cell phone. It is seen that in leisure time, instead of talking to each other, all the family members take their personal cell phones and sit down to chat with other people through social media. As a result, harmony does not arise between all the family members and emotional relationships do not develop between them. As a result, the family adaptation of the children is jeopardized, which has an impact on their social adaptation.
- Students who cannot use ICT in a controlled manner cannot engage in activities such as sports, as a result their sociability does not develop and they do not develop a sense of cooperation and teamwork.
- Teachers and students have become more involved with other members of their group through ICT, resulting in a decrease in personal contact between them, which has a negative impact on their personal and social development.
- Due to excessive use of ICT, students face problems like visual impairment, physical ailments or lack of agility in the long run. Due to this, their self-confidence is adversely affected, as a result they are unable to integrate with their group and their sociability is questioned.

Technological Challenges:

The technical challenges arising due to the use of ICT are mentioned below.

- The prevalence of ICT in education is increasing, but there is still a shortage of teachers with the technical knowledge to use it easily and effectively.
- New technologies are constantly being developed in the field of ICT. Therefore, even after spending once on ICT equipment and technology, educational institutions have to continuously spend on its development, enhancement, maintenance and keeping it up to date.
- Without basic commonality between the ICT tools and technologies available to schools and students, effective communication between them cannot be established.
- ICT-based content is useful in achieving the objectives of education only if it is developed by a team of experts with sufficient expertise in ICT, pedagogy, educational psychology and content. The lack of such a team of experts prevents the large-scale development of content that is technically and educationally rich.
- As ICT develops, computer viruses and malware also develop along with other software. So far, no such hardware or software has been developed that can solve the problem of viruses immediately. Many students and teachers use computers in educational institutions. They insert their pen drives into the school computer and exchange information from them. They also use the internet. Through all these means, viruses and malware enter the school computer. There is no permanent solution to prevent this.
- This technical problem is also seen in students' and teachers'

own private and personal computers or cell phones.

- There is also a shortage of staff with the technical skills to perform administrative, managerial, and library-related work in schools, and to develop software for the same, so educational institutions have to rely on external experts for such work.
- Now, many correspondences between educational institutions and the government and with other government or non-government organizations are done through computers. If all these places do not have the same or almost the same software, browser, the same versions of the same operating system and the same computer fonts, then information sent from one place, in most cases, cannot reach the other place as intended.

Value related Challenges:

The use of ICT in the field of education is increasing. Due to the Internet, a lot of information including all kinds of literature, films, audio materials, pictures, diagrams, etc. is available in an unimaginable amount. Students can access all this type of information. If they use ICT proportionately, purposefully and in a controlled environment, then the objectives of ICT in education can be achieved. If this does not happen, then the following problems are likely to arise.

- Every nation has its own unique culture, which is tried to be preserved. Through the Internet, cultural content of different countries is easily available. Students get attracted by such information and are seen adopting foreign culture, forgetting their own cultural values.
- Due to such a transition to foreign culture, the difference in the ideological level between the two generations also increases. Due to which the tolerance between them decreases, as a result, social harmony cannot be maintained between the people.
- Due to the banned and pornographic literature available on the internet, people, especially the youth, get inspired to do immoral things and become self-centered, due to which they are unable to maintain moral values.
- Students get literature related to their subject, in almost all languages, through the internet. They share such literature with each other using social media, due to which they do not put in the effort to find the subject material, and as a result, they do not understand the value of the work.
- Due to the use of social media, personal contacts between people are decreasing. As a result, the sense of interdependence, cooperation and collective life among people are decreasing. Due to which family and social values do not develop properly in the student.
- Due to excessive use of ICT, students become self-centered, due to which their social skills do not develop properly.
- Due to excessive use of ICT, students become sedentary. Which affects their physical health. Due to lack of exercise, their health is negatively affected. Thus, they become careless towards the value of physical health.
- Because of the Internet, people break the law by committing plagiarism and cannot uphold the legal values of the country.
- National and international crimes of fraud, terrorist activities, anti-social activities, activities of buying and

selling illegal things etc. can be easily done with the help of internet. There are many groups of people who do such activities at national and international level, who lure the youth and teenagers to do such activities and trap them in their trap. Due to lack of guidance and control and greed of earning money quickly, the youth and teenagers get involved in such activities and go on the wrong path. Due to which social, moral, religious, spiritual and legal values are being eroded.

ICT and Society:

From the beginning to the present day, as man developed, so did technology develop, or as technology developed, man developed, or did the development of both complement each other? This is a question that perhaps the task of finding the correct answer is very difficult. But it can be said that technology has a positive and negative impact on society and society on technology. In what way? We will now discuss that.

» Effect of ICT on Society:

Any kind of technology is developed, in almost all cases, for human welfare, but its social utility is determined by how and why humans use it. Looking at the current situation of ICT, it can be said that people have used it in both positive and negative ways. Based on which we can say that ICT has had both positive and negative effects on society.

1. Positive Effects of ICT on Society:

The positive impacts of ICT on society can be said to be as follows.

- The process of communication has become faster, more diverse and cheaper. Various social media have developed. Their accessibility has become easier. Due to which people living in the country and abroad can stay in constant contact with each other, hence society has become wider in terms of area.
- Due to the use of such media, familiar and unfamiliar people with similar interests come into contact with each other. They can easily exchange their thoughts, knowledge, expectations, questions, problems, reactions and responses. As a result, it becomes easier to find solutions to many social, personal, professional, mental, educational and family problems, so that the society becomes progressive.
- Communication media can be used effectively to create public awareness about government and non-government activities for social upliftment and to involve people in such activities.
- Employment opportunities have increased in the fields of web designing, software development, computer hardware, cell phone networks, Internet services, television, radio, film, photography, advertising, etc. Skilled individuals and employees have been able to achieve economic success in these fields.
- Disciplines related to ICT have developed. New educational opportunities have increased in this field, and employment opportunities have also increased in it.
- The use of ICT in education allows students to present richer information in terms of content in an interesting way. The field of distance education has grown with

the help of virtual classrooms, video conferencing and audio conferencing. In addition, the development of such technologies has made it possible for students to easily benefit from the knowledge of expert teachers.

- With the help of ICT, weather forecasts can be made with near-accurate accuracy, thereby preventing loss of life and property due to natural disasters.
- In the field of education, from admissions, examinations, results to other administrative and managerial tasks have become fast, accurate, secure and corruption-free. Due to this, educational institutions, students, teachers, parents, government and the public save time, energy and money.
- Paperless communication has become possible, which helps in protecting the environment.
- There has been speed and accuracy in solving crimes in the field of law.
- The development of security systems for homes and business complexes has strengthened their protection.
- In the field of health and medicine, precision has come in the diagnosis and treatment of diseases.
- There has been a revolution in the field of online buying and selling. Goods from home and abroad are available at reasonable prices, easily and reliably. Hence, the field of online trading has developed.
- With the availability of online booking facilities for transportation services, people can better plan their travel.
- Banking systems with ATMs, credit cards and debit cards have become more secure, faster and more widespread. As a result, people can easily travel domestically and internationally without taking financial risks. In addition, the development of online banking facilities has made large-scale transactions safer.

2. Negative effects of ICT on society:

The negative impacts of ICT on society can be said to be as follows.

- The problem of plagiarism has increased in the fields of education, writing, and publishing, resulting in an increase in the number of crimes that violate copyright and intellectual property laws.
- Using social media, people secretly spread false messages, misinformation, and rumours to each other, resulting in a threat to social peace.
- Pornographic literature is available on many websites. Which can be easily viewed by a person of any age with the help of internet on their computer and cell phone. Due to which moral values are being eroded in the society.
- The problem of hacking on the internet has also become serious. As a result, crimes of using people's confidential information to harm them socially and economically have increased.
- People become addicted to ICT and prefer to be alone rather than in a group, which negatively affects their adaptation and social life.
- Due to excessive use of ICT, harmony does not arise among all family members and emotional ties do not develop between them, which hinders people's social adaptation.
- Due to the use of social media, people's personal contacts are decreasing. As a result, the sense of interdependence,

cooperation, and collective life among people are decreasing.

- National and international crimes of fraud, terrorist activities, anti-social activities, activities of buying and selling illegal things etc. can be easily done with the help of internet. There are many groups of people who do such activities at national and international level, who lure the youth and teenagers to do such activities and trap them in their trap. Due to lack of guidance and control and greed of earning money quickly, the youth and teenagers get involved in such activities and go on the wrong path.

» Effect of Society on ICT:

1. Positive Effects of society on ICT

The positive effects of ICT society can be said to be as follows.

- The needs of society provide the driving force for experts to make new discoveries in the field of ICT.
- Various government and non-government organizations are making efforts for the development of ICT, which motivates experts to make new discoveries in this field.
- People are rapidly adopting new features of ICT, either personally or in their businesses. Therefore, efforts are constantly being made to develop new technologies in this field.
- Educated individuals from society accelerate the development of ICT.
- Individuals who use ICT informally spread the word about its positive aspects, thus inspiring others to use ICT, thereby accelerating the development of ICT.
- Subjects related to ICT have been introduced at school and college levels and separate disciplines have been started at the higher education level focusing on ICT, due to which professionals with subject expertise in this field are making careers. As a result, the development of this field has accelerated.

2. Negative Effects of Society on ICT

The negative effects of society on ICT can be said to be as follows.

- Some elements misuse the technologies developed in the field of ICT. Due to which some governments, social, political, religious and public organizations prohibit the use of such technologies, due to which the sufficient expansion of ICT technologies does not occur.
- In some countries and regions, ICT cannot be used to its full potential due to the lack of adequate electricity and procurement systems for ICT.
- People are afraid of doing business or financial transactions online due to the possibility of hacking, which prevents the full use of ICT.
- Many government and non-government organizations are broadcasting messages for public awareness about ICT-based crimes through various media. However, people do not take such advertisements seriously and use ICT without taking sufficient precautions. As a result, people who commit cyber-crimes are motivated to misuse ICT.
- Despite many challenges to the proper use of ICT in education, almost all government, non-government educational and regulatory bodies have made recommendations for its

utilization in education. Government bodies like NCTE, NCERT and UGC working in the field of education in India have made recommendations for the use of ICT at different levels of education. Out of these, we will discuss the recommendations made by NCERT regarding ICT.

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CONCLUSION

- Two subjects, CS (Computer Science) and ICT, should be taught separately in schools.
- There should be a difference between the curriculum of these two subjects. For example, ICT curriculum should focus on the usability of computer hardware and software and developing skills in their use, while CS should focus on the basics of computer hardware and software. Knowledge and skills for its development should be imparted so that students can help in the development of ICT in the future.
- We face many technological challenges in teaching both these subjects at the school level. Basic technological modern facilities have not been provided in rural and remote areas, due to which it is difficult to teach subjects like CS in a uniform manner across the country. Therefore, as many viable alternative facilities of technology as possible should be created in schools in rural and urban areas.
- CS and ICT courses may have many things in common, so there should be discussions between educators, administrators, and the public when designing such courses.
- Solutions to all the challenges and issues that may arise from introducing CS and ICT subjects at the school level should be thought out in advance.
- If ICT is used to connect students and teachers with scientists working in universities and research institutes, they can be introduced to the work and working methods of scientists.

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